ASBESTOS

A MONTHLY
MARKET
JOURNAL

MARCH
1934

..ASBESTOS..

A MONTHLY MARKET JOURNAL DEVOTED TO THE INTERESTS OF THE ASBESTOS AND MAGNESIA INDUSTRIES

A. S. ROSSITER, *EDITOR*

PUBLISHED BY SECRETARIAL SERVICE

16th FLOOR INQUIRER BUILDING

PHILADELPHIA, PENNSYLVANIA

C. J. STOVER, *OWNER*

Entered As Second Class Matter November 23, 1923, at the Post Office at Philadelphia, Pennsylvania, Under Act of March 3, 1879

Volume XV | MARCH 1934 | Number 9

CONTENTS

SUBSCRIPTION PRICE

U. S. AND MEXICO	$2.00 PER YEAR
FOREIGN COUNTRIES (INCLUDING CANADA)	3.00 " "
SINGLE COPIES	.25 EACH

Sounding the Atmosphere for Science and Aviation

By R. G. Skerrett

We practical business men have been reading in the newspapers of rocket flights, exploration of the stratosphere, etc., and the first question which occurs to us is "of what use are such scientific experiments. What good would it do *us* if the stratosphere were successfully explored and found to be thus and so?" In the following article Mr. Skerrett tells us why these scientific experiments are being undertaken and, incidentally, and of particular interest, how Asbestos is used in the experiments.

Whatever may yet be the mysteries of the stratosphere, at least some of them are in a fair way of being solved by the records made in November last during the balloon journey of Lieutenant-Commander T. G. W. Settle and Major Chester L. Fordney, of the United States Navy, when they soared skyward to the extraordinary height of 61,237 feet. Compared with the limitlessness of space, that venture is hardly more than infinitesimal, yet we may learn from it much that has heretofore been only speculative.

Just as the frontiers of the earth have been successively advanced by man's restless pioneering, and even the polar regions have been traversed, so, too we have first-hand knowledge of the ocean's greatest depths. Similarly, we are now bent upon sounding the atmosphere both for scientific and thoroly practical reasons. In this thrilling and exceedingly important newer realm of exploration, asbestos is likely to play an essential part.

Few of us seem to realize that we are sea creatures of a sort and that we really live at the bottom of an atmospheric ocean that bears heaviest upon us at the level of the visible sea. The higher we rise in the air, the composition of the air alters, the atmosphere grows cooler and diminishes in density, and the longitudinal movements of the air are more regular even tho their velocities differ. The percentage of oxygen in the air decreases as we mount skyward. If aerial navigation could be carried on thru the stratosphere, it would be practicable to make higher

speeds with a given propulsive horse power because the aircraft would travel thru a lighter and less resistant medium. Of course, provision would have to be made against temperatures fifty or more degrees below zero Fahrenheit, and oxygen would have to be supplied from a portable source to offset the atmospheric shortage of that element. These requirements can be met.

A practical-minded German engineer, named Zucker, has proposed to transport postal, express, and other worthwhile matter thru the stratosphere by means of self-propelled aluminum rockets. The rockets would rise to an altitude of many thousand feet and then assume a horizontal and predetermined course at high speed. At a prearranged point or at certain intervals, a rocket would drop all or some of its cargo, which would descend in a leisurely fashion with the aid of parachutes. The scheme contemplates the use of multiple cartridges, effectually insulated from one another, and arranged to ignite successively and thus maintain a continuous rearward discharge of impulse gases. Up to the present moment, we are unaware of any actual application of Herr Zucker's invention. However, there have been newspaper references to the flight of a man-carrying rocket-ship, said to have been tested last year from the Island of Rugen in the Baltic Sea. The passenger is reported to have stood on a floor covered with asbestos and that that deck became very hot during the rocket's flight to a height of thirty-odd thousand feet. It is understandable that the continual generation of propulsive gases would cause a high temperature and that asbestos would be used as an insulator.

It is certain that the Germans have used multiple rockets to propel first a model glider and then to drive a man-carrying glider; but none of those experiments had for its immediate purpose mounting to the stratosphere. Probably the most original work in the way of utilizing multiple-change rockets for reaching great altitudes has been carried out over a considerable period by Dr. Robert H. Goddard, of Clark University, Worcester, Mass. Step by step, Dr. Goddard overcame a number of sizable obstacles, and incidentally made radical improvements. In his efforts he was aided by substantial sums allotted him

by the Smithsonian Institution over a period of twelve years. The primary purpose of his rocket was to reach extreme altitudes to make meteorological observations. According to the Smithsonian Institution, Doctor Goddard showed that it would be perfectly possible by means of his new type of high-efficiency rocket to send recording instruments to hitherto unknown upper layers of the atmosphere and to provide for their safe return, thus obtaining data of the greatest interest and scientific value to meteorological and solar physics. This was back in 1920.

At the present time, sounding balloons can penetrate to a height of about 20 miles, but such free balloons not infrequently drift 150 miles before they come to earth again, and their recovery is uncertain. Doctor Goddard's rocket has been designed to go straight up to any desired height and, being equipped with a parachute, should return in a short while to a point close to its place of starting. Suitable automatic apparatus could be carried aloft in this manner to measure the temperature and pressure of the higher atmosphere, to expose spectographs above the ozone layer, to register the ultraviolet spectrum of the sun, to register the cosmic rays, and to bring back samples of the upper air for chemical analyses. A whole new field of investigation may thus be explored in the twofold interest of science and aviation. The Goddard rocket is now far beyond the experimental stage and is rapidly being made fit for the exacting work expected of it.

In its earlier form the rocket was equipped with means for feeding small charges of high explosive so as to maintain a continuous discharge of propulsive gases. In its latest form, the rocket is propelled by the steady combustion of a fuel oil in combination with liquid oxygen—the liquid oxygen offsetting the gaseous oxygen deficiency found in the air at the higher altitudes. Without sufficient oxygen the hydrocarbon fuel that supplies the propelling gases would not burn.

A trial of the liquid-propelled rocket was made at Worcester, Mass., in July of 1929, and the flow of the liquid fuel was entirely satisfactory, as were also the ascent of the rocket and its rapid travel. The rocket is reported to have traced a high arc and then to have returned to the

ground instead of continuing on upward. The trouble was that the rocket was guided only by vanes on its rear end, and those planes did not prove efficient in steering the projectile. Since then, the inventor has designed automatic stabilizers as well as automatic recording devices, and experiments are proceeding in New Mexico that may soon make it feasible to send rockets to altitudes far beyond the height reached by Settle and Fordney. These exploratory flights can be made at short intervals and at a relatively moderate cost when compared with the flight of the humanly controlled stratosphere balloon. The descending rockets and the recording apparatus are supported by parachutes on their return journeys; and asbestos is probably the insulator used to prevent the heat of combustion from harmfully affecting the rocket itself, or damaging the instruments during their skyward passage.

The pioneer work done by Doctor Goddard has inspired the efforts of other scientists and inventors, and a number of the latter have devised plans that suggest the double influence of Jules Verne's fanciful trip to the moon and Doctor Goddard's experiments. A man-carrying rocket for stratosphere research does not make an appeal to the practical-minded; but automatic exploratory rockets have much to commend them as a means of gathering scientific data of great value at extremely high altitudes. Their revelations may blaze the way to the development of routes for aeronautical use when aircraft are planned that will meet the physical conditions there imposed. The metallurgist, the chemist, and the engineer are continually contributing in one way or another means to such an end.

According to a newspaper account, late in December last, the Cleveland Rocket Society, of Cleveland, Ohio, is intent upon following up recent reduced scale trials by building a rocket ship, susceptible of radio control, that will be able to rise to an altitude of 15 miles. It is thus apparent that the subject is stimulating many minds. *The New York Times* of December 31, closed a special dispatch from Paris, dealing with stratosphere flights, with this significant pronouncement of an eminent French physicist: "If we knew exactly what goes on in the very distant

atmosphere, it would help us in determining a great many things of interest, and in fact, for example, might permit us to predict with scientific exactitude the weather conditions on the earth, perhaps weeks and even years in advance."

Manifestly, insulation against the high temperatures of the propelling gases will be essential to the success of any of the projected exploratory rockets, and asbestos will probably be found to serve best the several services to which it may be put.

John F. Bolger

It is with deep regret that we learn of the passing of our good friend on March 5th, 1934.

Mr. Bolger was born in Montgomery County, Pennsylvania on March 27th, 1861 and spent his entire life in the woolen, asbestos and textile machinery industries.

For many years he was with George S. Harwood & Sons, Boston, Mass., and, in 1920, when Wm. G. Kitchen, an experienced and successful wool manufacturer entered the asbestos textile field, Mr. Bolger became Vice President of Mr. Kitchen's asbestos venture, Allbestos Corporation, Philadelphia.

Mr. Bolger was an active member of the K. of C.

He had a host of friends and will be remembered by those who best knew him, for his remarkable memory and his firm convictions.

Striving always for honesty and sound ethics in his own business, he was a valiant advocate for better ideals and common decency in all phases of life.

We shall miss him.

Asbestos in Temperature Regulation

By H. C. Charles

Much of the present day refinement in manufacture is directly traceable to temperature indication and regulation. Within the past twenty years we have witnessed an almost universal conversion of industry from open coke and coal fires to oil, gas and electricity. In the old coke and coal furnace for forge shop purposes, for example, the fuel was burned in the open, the furnace forming a sort of container for the fire and the stock laid across the top. The fully inclosed furnace was rarely used due to the absence of suitable refractory to withstand the high temperatures encountered. Consequently the actual temperature of the furnace and the zone around the stock was a questionable factor. The article produced varied considerably in all its characteristics as affected by temperature, and obviously, life and usefulness was materially reduced over what a similar article produced today, under the refined methods of heating and heat treatment, will evidence.

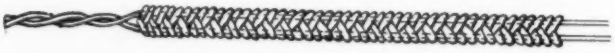
It is quite obvious that the present refinement in heating steel, for example, in industry is the direct result of the advancement along several widely different lines of investigation. To mention three of the most important we have: first, the introduction of high grade refractory making it practical to confine a high temperature flame within a box type furnace. Second, high grade insulation. Third, temperature indicating instruments reliable in character.

In the present article we are principally concerned with the temperature indicating equipment since asbestos plays such an important function in connection therewith. The pyrometer stands today as the most reliable temperature indicating instrument for high temperatures, that is, three hundred degrees and above. It is used for temperatures below this range where the ordinary thermometer is not readily adaptable.

For temperatures relatively low, and in practically all

cases where rapid temperature measurement is desired, asbestos forms the best protecting means for the thermo-couple. In permanent set-ups the couples are usually protected by refractory tubes; however, in low temperature work where the couple must be made of relatively small wire the best protection is asbestos.

For this purpose asbestos yarn containing a very small



Asbestos covered thermo-couple.

percent of cotton is used. The cotton, of course merely to provide mechanical strength in the manufacture of the yarn and readily burning out when the yarn is placed in service. In lieu of the cotton strands a copper strand is sometimes used; however, its use is not at all essential as the asbestos usually lasts long enough for all practical purposes after it has once been wrapped around the wires.

The accompanying figure illustrates how the asbestos yarn is wrapped around the wires. It is apparent that the junction of the couple is not covered as such procedure would slow up the temperature reading materially. The asbestos yarn is braided about the wires in such manner as to hold them a small distance apart and at the same time to tie one wire to the other, also adding strength to the asbestos covering in order to resist abrasion and damage in handling the couple.

Receivers Return Rusco Assets to Company

Pending the dismissal of the receivers, T. M. Russell and Daniel R. Weedon, who have been in charge of the Russell Manufacturing Company, Middletown, Conn., since June 1931, in order to liquidate some receivers obligations now in their hands, the receivers on February 9th turned over the control and operation of this 100

year old concern to the new management elected on February 8th.

The new officers of the company are T. M. Russell, chairman of the board; G. M. Williams, president and general manager; C. J. Sherer, vice president and treasurer; and J. Howard Williams, Secretary.

The receivers have re-delivered to the company for the control and operation of the new management all of the assets in their possession and control, excepting only a cash reserve of a limited amount to cover certain unmatured receivership obligations and contingencies. Checks have been issued in full payment of all other obligations of the company incurred both prior to and during the receivership.

The new management comes into control of the company with a strong current position, free from all indebtedness, excepting only certain new bank loans. The products of the Russell Manufacturing Company include Ruseo brake linings, clutch facings and other automotive products and a variety of elastic and non-elastic webbing.

Both Mr. Williams, the new president and general manager, and C. J. Sherer, the new vice president and treasurer, are well known in automotive and industrial circles. Mr. Williams was formerly president of the Marmon Automobile Company and the Wire Wheel Company.

The election of officers on February 8th followed a meeting of stockholders at which the following directors were elected; G. M. Williams, T. M. Russell, F. W. Shibley, F. St. John Morgan, Allan Forbes, Arthur P. Day, H. K. W. Welsh, and Marshall N. Jarvis.

MARKET CONDITIONS

General Business.

General business conditions show a definite trend toward improvement and feeling is apparently better as indicated by the following from the monthly letter of the National City Bank:

"The forward movement of business that began in January has continued at an accelerated rate during the past month. Operations have expanded in all the chief industries, and comparisons with a year ago have become most favorable.

"To be sure, comparisons with 1933 may overrate the improvement, in view of the extreme depression caused at this time last year by the banking crisis. However, the gains in the past two months have exceeded the usual seasonal percentages, and generally by a good margin."

Asbestos. Raw Material.

One of our correspondent writes: "For the month of February, importations into the United States from Canada as well as from other foreign countries were ahead of last year, showing that the demand for Asbestos is constantly increasing. There has been no change in prices and there is no decline from any source."

Manufactured Asbestos Goods.

Textiles. Textile prices are steady, demand below normal for this season, altho still insufficient to keep machinery working at anything like capacity.

Brake Lining. Demand continues fair to good in automotive lines, but in industrial consumption it is very much below normal because industries aside from the Steel Industry, have not yet benefitted from the general improvement.

Paper and Millboard. The market on paper and millboard and low pressure coverings is about normal for this time of year. Volume is running ahead of last year and prices are firm.

Insulation. High Pressure. The months of October, November and December showed a slight increase in consumption, month after month, but January and February again

fell off as is customary at this time of the year. The price level remains the same with no immediate indication of change. Absence of new building is responsible in a large measure for the considerable decrease in demand.

Asbestos Cement Products. Asbestos shingle sales for the industry during the month of January exceeded the sales for the same month in 1933 by about 60%. Naturally, sales are not great in volume at this season of the year but nevertheless the improvement indicated by the foregoing figure is generally regarded in the industry as a very favorable sign for 1934 business.

Complete figures for 1933 are available and while there was a decline in the number of units sold below the 1932 total, it was not alarming and considering the fact that the early part of 1933 was decidedly below normal, sales toward the end of the year were unexpectedly good.

Asbestos shingles designed especially for siding purposes increased 100% in the number of units sold during 1933 over 1932. Siding shingles of which there were practically none two years ago in the asbestos cement field, have now become a very important factor amounting to about 15% of the total unit sales in 1933 with every indication that there will be a steady increase in the use of this type of shingle.

Although volume has not increased during the past two years, the asbestos shingle industry has held its own very well in the face of adverse business conditions when cheaper materials were in demand. Many improvements in the style, colors and textures have been introduced and industry is in a splendid position to take advantage of improved business conditions as they develop.

There is a steady increasing demand for corrugated and flat sheets. Much of this type of material is being used on work financed by the Federal Government just as many of the asbestos shingles are also being used on similar projects. Gradually increasing costs of both raw materials and labor have had a tendency to strengthen prices of the various asbestos cement products and market conditions are generally very satisfactory.

The above represent opinions of men closely in touch with the various markets. Such opinions are welcome from all interested readers.

Africa (Rhodesia).

(Statistics published by Rhodesia Chamber of Mines).

	December 1933 Tons (2000 lbs.)	Value		
Bulawayo District				
Nil Desperandum (Afr. Asb. Mng. Co. Ltd.)	371.50	£ 4,643	16	1
Shabanie (Rho. & Gen. Asb. Corp. Ltd.)	1,153.63	14,420	6	3
Victoria District				
Gath's & King (Rho. & Gen. Asb. Corp. Ltd.)	200.10	2,501	5	–
	1,725.23	£21,565	6	4
December 1932	*1,944.36*	*£24,304*	*11*	*3*

SUMMARY FOR THE YEAR—RHODESIA (Tons—2000 lbs.)

	1932	1933		1932	1933
January	754.83	2,674.65	July	822.14	3,652.92
February	873.07	1,872.30	August	1,044.07	2,519.72
March	1,000.23	2,256.03	September	1,195.18	2,624.42
April	1,740.27	3,664.30	October	898.41	1,684.16
May	1,118.43	3,699.77	November	2,519.37	1,104.84
June	1,855.64	2,703.25	December	1,944.36	1,725.23
			Total	15,766.00	30,181.59

Canada

(Statistics by Quebec Bureau of Mines)

(All tons 2000 lbs.)	January 1933	January 1934
Fibre	5,951	8,502
By-Products	64	92

SUMMARY FOR THE YEAR—CANADA—By Grades

	1932 Tons (2000 lbs.)	1933 Tons (2000 lbs.)
Crude (Nos. 1 and 2)	737	1,060
Milled (Nos. 3, 4, 5)	52,403	76,039
Milled (Nos. 6, 7)	72,267	73,369
	125,407	150,468

Little Lessons in Selling

By John T. Bartlett

How Would YOU Like to be Sold to by YOU?

So engrossed have you been in selling and building up an effective sales-talk, have you ever stopped to think how **you** would be appealed to by the talk **you** use?

There are, a salesmanager remarked to his men not long ago, two kinds of salesmen—the Quantity Salesman and the Quality Salesman. The Quantity Salesman is thinking only of a big immediate sale; the Quality Salesman thinks of future sales even more than he does of to-day's.

In the Quantity Salesman class we have the magazine salesman, who, regardless of the type of prospect, eager only to make a sale, rattles off his poll-parrot palaver with heedless abandon. There are salesmen in every field just like him. They unloose a sales talk that is an insult to the man of intelligence, that leaves him mentally nauseated, and in no mood to consider any proposition.

Are **you** that type of salesman? How would **you** like to be forced to listen to such a talk? Wouldn't you be disgusted? Wouldn't your reaction be not to buy, no matter how attractive the offer?

Consider, how, were you the prospect, you would like to be approached. First, I am sure, in a civil, cautious manner. Second, as a human being of intelligence, capable of listening to sound, carefully prepared arguments, expressed with conviction and a feeling of real appreciation — as one business man to another.

Perhaps you've been thinking too much of getting a sales-talk down pat. Sit in your customer's chair a moment. Approach yourself and give your talk. If it irritates the customer—you,—and stamps the salesman—you— as a Quantity Salesman, it's high time you changed your methods.

Be a Quality Salesman! Sell as you'd like to be sold to!

CONTRACTORS AND DISTRIBUTORS PAGE

One of the older independent contractors sends in his views on the question raised in our January issue. We would like to have someone's answer to the three claims made by this Independent.

"What you say in your article is true and the writer agrees that the manufacturer has a perfect right to do contract work, but the following are a few of the reasons why it is unfair competition to the independent or approved contractor:

1. Branch offices of the manufacturer are not expected to make a profit over and above actual overhead, whereas the independent or approved contractor must obtain a profit above his actual overhead if he is going to continue to prosper.
2. When a large contract is to be figured or executed the branch office of the manufacturer obtains a special price for that particular job, whereas the independent or approved contractor must pay the regular price.
3. When the branch office of the manufacturer has a contract that is exceptionally profitable they can transfer some of the labor charges from the profitable contract to the unprofitable contract or, in other words, even up the profits on their contract work. This method of handling work would be unwise for the independent or approved contractor."

PROGRESS OF A. C. N. A.

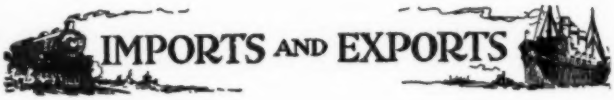
The A. C. N. A. reports the election of fifteen new members since the last issue of "ASBESTOS."

At the present time their membership includes the majority of the active contractors in the country.

No further developments on their Code are reported.

BUILDING

Contracts let during January showed a gain of over 100 per cent over January 1933, according to F. W. Dodge Corporation, but the total of $187,463,700 was almost 10% smaller than the contract volume for December which totalled $207,209,500. In commenting on the outlook the Dodge Bulletin reads: "There can be little doubt that the contract volume for the initial quarter of 1934 will exceed 500 millions; this, in contrast with 196 millions for the corresponding quarter of 1933."



Imports Into U. S. A.

Unmanufactured Asbestos.

	December 1932 Tons (2240 lbs.)	December 1933 Tons (2240 lbs.)
Africa (Br. S.)	334	269
Canada	6,426	8,525
Cyprus, Malta & Gozo	.....	185
Italy	143	180
Soviet Union (Russia)	.....	164
United Kingdom	.....	1
	6,903	9,324
Value	$180,572	$388,578

Tabulation of Crudes:

Africa (Br. S.)—Crude	334	269
Canada (Crude)	7	56
Italy (Crude)	2	1
United Kingdom (Crude)	..	1
Canada (Mill Fibre)	2,201	4,476
Canada (Lower Grades)	4,218	3,993
Cyprus, Malta & Gozo (Lower Grades)	.....	185
Italy (Lower Grades)	141	179
Soviet Union (Russia)	.....	164
	6,903	9,324

Manufactured Goods:

	December 1932 Value	December 1933 Value
Austria	$2,827	$ 195
Belgium	.....	692
Germany	102	2,706
United Kingdom	2,036	998
Czecho-Slovakia	210	.....
	$5,175	$4,591

Exports from U. S. A.

Exports of unmanufactured asbestos during December, 1933 amounted to 86 tons, valued at $8,559; compared with 174 tons, valued at $9,933 in December 1932.

Exports of Manufactured Asbestos Goods:

	December 1932		December 1933	
	Pounds	Value	Pounds	Value
Paper, Mlbd. & Rlbd.	24,519	$2,526	25,582	$2,484
Pipe Covering & Cement	582,636	28,854	192,496	9,395
Textiles, Yarn & Packing	64,140	31,678	95,533	48,662
Brake Lining—				
Molded and semi-molded	.....	34,581	.....	49,920
Not molded[1]	138,220	19,029	118,438	19,055
Magnesia and Mfrs. of	81,348	6,486	134,054	9,958
Asbestos Roofing[2]	18,683	22,092	433	1,065
Other Manufactures	151,785	11,418	141,079	12,814

[1]Lin. Ft. [2]Sqs.

Exports of Raw Asbestos from Canada.

	January 1933		January 1934	
	Tons (2000 lbs.)	Value	Tons (2000 lbs.)	Value
United Kingdom	40	$ 1,470	273	$ 18,419
United States	2,617	98,320	3,343	171,991
Australia	80	4,800	80	4,000
Belgium	20	2,200	2	400
France	40	803	13	5,850
Germany	182	11,540	475	40,850
Italy	11	1,210	138	6,210
Japan	1,924	94,010	2,703	89,670
Spain	.....	.....	44	1,980
	4,914	$214,353	7,071	$339,370
Sand and Waste—				
United Kingdom	.....	.....	50	1,000
United States	4,084	53,395	3,923	54,028
Belgium	.....	.....	.....	.....
Germany	60	1,080	80	1,600
Italy	.....	.....	.....	.....
Japan	5	50	5	62
	4,149	$54,525	4,058	$56,690
	9,063	$268,878	11,129	$396,060

ASBESTOS

Imports and Exports by England.

Imports of Raw Material.

	January 1933		January 1934	
	Tons (2000 lbs.)	Value	Tons (2000 lbs.)	Value
Africa (Rhodesia)	477	£10,047	926	£20,855
Africa (Union of South)	333	5,732	437	12,256
Africa (Port. E.)	89	1,512	.....	.....
Australia	....	4	.....	11
Austria	....	.....	.....	6
Belgium	....	.....	2	26
Canada	38	535	257	4,751
Cyprus	111	2,001	132	2,400
Finland	....	.....	5	34
Germany	20	532	..	....
Italy	5	359	11	142
Soviet Union (Russia)	22	616	52	513
U. S. of America	19	175	55	705
	1,114	£21,513	1,877	£41,699
Re-Shipments	26	860	.....	.....

Exports of Asbestos Manufactures.

	January 1933		January 1934	
	Cwts.	Value	Cwts.	Value
To Irish Free State	1,769	£ 1,490	3,225	£ 2,570
To British India	4,660	6,956	5,371	7,198
To Australia	646	5,043	750	4,941
To Other British Countries	4,718	9,264	11,553	19,168
To Netherlands	691	3,280	1,057	3,589
To Belgium	645	3,418	327	2,372
To France	407	2,333	968	2,528
To Italy	483	4,158	455	3,821
To Other Foreign Countries	5,476	19,834	5,894	21,709
	19,495	£55,776	29,600	£67,896

SUMMARY FOR THE YEAR—U. S. A.

Imports into U. S. A.

Unmanufactured Asbestos — By Countries.

	Year 1932 Tons (2240 lbs.)	Year 1933 Tons (2240 lbs.)
Africa (Br. S.)	491	2,075
Africa (Port. E.)	309	.....
Canada	84,536	100,840
Finland	.....	33
Germany	.....	37
Italy	638	852
Russia	.....	867
United Kingdom	337	11
Cyprus, Malta and Gozo	.....	2,030
Venezuela	.....	10
	86,311	106,755
Value	$2,227,458	$3,439,683[1]

[1]Exclusive of April 1933 figures which were not published by U. S. A.

Unmanufactured — By Grades

	Year 1932 Tons (2240 lbs.)	Year 1933 Tons (2240 lbs.)
Africa (Br. S.)		
Crude	491	2,075
Africa (Port. E.)		
Crude	309	.....
Canada		
Crude	272	790
Mill Fibre	27,473	41,541
Lower Grades	56,791	58,509
Italy		
Crude	327	123
Mill Fibre	60	.....
Lower Grades	251	729
Russia		
Crude	.....	164
Mill Fibre	.....	303
Lower Grades	.....	400
United Kingdom		
Crude	299	11
Mill Fibre	14	....
Lower Grades	24	....
Germany		
Crude	.....	5
Lower Grades	.....	32

SUMMARY FOR THE YEAR—U. S. A. (Continued)

Imports Unmanufactured — By Grades

	Year 1932 Tons (2240 lbs.)	Year 1933 Tons (2240 lbs.)
Venezuela		
Lower Grades	.....	10
Cyprus, Malta and Gozo		
Lower Grades	.....	2,030
Finland		
Lower Grades	.....	33
Manufactured Asbestos:	86,311	106,755
	Value Year 1932	Value Year 1933
Austria	$ 3,129	$ 1,042
Belgium	.....	2,921
Canada	1,794	1,947
Czecho-Slovakia	210	.....
France	3,252	794
Germany	8,445	11,402
Hungary	369	150
Italy	.....	1,746
Japan	.....	169
Soviet Union (Russia)	.....	708
Spain	.....	155
Switzerland	.....	28
United Kingdom	17,485	19,408
Exports from U. S. A.	$34,684	$40,470

Exports of unmanufactured asbestos during the year 1933 amounted to 1,230 tons, valued at $88,521; compared with 1,524 tons valued at $94,936 for 1932.

Exports of Manufactured Asbestos Goods:

	1932		1933	
	Pounds	Value	Pounds	Value
Paper, Mlbd. & Rlbd.	586,877	$61,062	878,843	$62,851
Pipe Covg. & Cement	2,452,678	136,140	1,819,046	93,936
Textiles, Yarn & Pkg.	904,203	431,218	1,035,849	510,186
Brake Lining—				
Molded & semi-molded	.....	396,543	.....	468,549
Not molded[1]	1,959,797	299,220	1,651,425	256,018
Magnesia & Mfrs. of	1,220,216	91,117	1,389,808	9,836
Asbestos Roofing[2]	30,886	59,306	85,532	150,283
Other Manufactures	1,293,997	134,274	1,677,012	109,481

[1]Lin. Ft. [2]Sqs.

NEWS OF THE INDUSTRY

Birthdays. The following gentlemen are on our birthday list this month: G. C. Hall, Secretary, National Asbestos Mfg. Co., Jersey City, N. J., whose birthday falls on March 17th; Lyndon E. Adams, President, Anchor Packing Co., Philadelphia, March 21st; Glendon A. Richards, President, Richards Mfg. Co., Grand Rapids, Mich., April 1st; George Kanzler, President, Smith & Kanzler, Elizabeth, N. J., April 4th; Charles Almy, Jr., President, Multibestos Company, Cambridge, Mass., April 6th; P. H. Jamieson, Manager, Jamieson Asbestos Co., Montreal, P. Q., Canada, April 13th. To all these gentlemen we extend best wishes.

George Angus & Co., Ltd., Bentham, Lancashire, England, reports a trading loss of £8,473 for 1933, due almost entirely to the provisions made for the losses incurred by a subsidiary company. A dividend of 3¾% has been declared on the ordinary shares (against 2½%) and £9,567 is to be carried forward (against £10,788).

Johns-Manville Corporation. Annual report of the Johns-Manville Corporation for the year ending December 31, 1933, has been issued as of March 1st, 1934. The Consolidated Balance Sheet shows that total of all Current Assets above all Liabilities amounted to $9,580,888 at the end of the year, an increase of of $542,331 for the year.

During the latter part of the year Preferred Dividend payments were resumed and all accumulations except the Dividend due October 1, 1933, have been paid. Consolidated Income Account comparing the years 1933 with 1932, follows:

	Year ended Dec.31, 1933	Year ended Dec. 31, 1932
Sales, net of returns and allowances	$21,232,272.16	$20,409,205.99
Less manufacturing cost, selling and administrative expenses, etc.	19,488,064.71	21,412,136.78
Net income **or loss**, before depreciation, depletion, income taxes and foreign exchange fluctuation	1,744,207.45	1,002,930.79
Deduct:		
Depreciation	1,526,250.10	1,782,467.52
Depletion	109,013.10	43,663.33
Provision for income taxes	66,999.22	
	1,702,262.42	1,826,130.85
New Income **or loss** before foreign exchange fluctuation	41,945.03	2,829,061.64
Gain due to foreign exchange fluctuation	63,386.00	148,188.63
Net Income **or Loss**	$ 105,331.03	$2,680,873.01

Keasbey & Mattison Company of Ambler, Pa., held their annual District Managers' Sales Conference at the Penn Athle-

tic Club, Philadelphia, February 12th, 13th, and 14th. The meeting was addressed by A. S. Blagden, President; W. W. F. Shepperd, Director of Turner-Newall, Ltd., and W. J. Donahue, Vice-President. G. F. Stone, Sales Manager of the Company, was the permanent chairman of the three day meeting.

The following field managers attended the meeting: S. H. Wellschlager, W. Marriott, Jr., Baltimore District; H. J. Dougan, W. W. Bainbridge, Boston District; R. C. Nelson, J. R. Adams, Chicago District; F. W. Baetzel, F. W. Decker, Cleveland District; J. H. Brown, Minneapolis District; Thos. A. Blagden, Jr., J. C. Huss, F. G. Bartz, New York District; H. F. Miller, F. T. Crow, Philadelphia District; R. A. Sarricks, Pittsburg District; D. W. Widmayer, H. B. Waterman, St. Louis District; H. W. Davis, of New Orleans; F. C. Alexander, of Atlanta, Ga., and W. O. Farrington, of Los Angeles, Direct Sales Representatives, also attended the meeting.

New Sales policies were ably presented by H. H. Heckroth, Manager of the Power Products Division and Wm. A. Harris, Manager of the Building Materials Division. G. F. Stone, Sales Manager, gave an interesting talk on the Operation of the Industry Code. Able assistance to Mr. Stone, Mr. Heckroth and Mr. Harris was furnished by Department Managers from Headquarters and from District Offices.

Expansion of the activities of Keasbey & Mattison Company in the field include the addition of F. C. Alexander, located at 1428 Peachtree Street, Atlanta, Ga., as a direct sales representative for Georgia and Florida, and W. O. Farrington, 924 E. Pico Street, Los Angeles, Calif., handling the Keasbey & Mattison Company West Coast business as a direct sales representative.

Dr. Gerhart Rosenbaum formerly manager of the Salom Works of Spalato Portland Cement Company is now engaged in reorganizing the Fibrocementos Castilla, S. A., Guadalajara, Spain, and introducing the manufacture of tubes, pipes, etc., of asbestos cement which will be produced in this factory.

Raybestos-Manhattan, Inc., earned Net Income of $685,198.61 in 1933, equivalent to $1.07 per share, comparing with a Net Loss of $457,167.39 during the year prior.

The Balance Sheet at December 31, 1933 revealed total Assets amounting to $15,902,843.95, including $7,384,877.83 of Current Assets, equivalent to twelve times the Current Liabilities of $609,200.15 at the close of the year. The Company had no banking or funded debt, or other capital obligations. The book value of its 642,900 shares of stock outstanding, after deducting the 33,112 shares held in the treasury, was $23.79 per share. The Net Current Assets represented $10.54 per share, of which Cash and Marketable Securities amounted to $4.11 per share.

The Directors declared a dividend of 25 cents per share, payable March 15, 1934, to stockholders of record at the close of business February 28, 1934.

ASBESTOS

The Westchester Asbestos Company, 121-5 Westmoreland Avenue, White Plains, N. Y., insulation and roofing contractors, with branch offices in Albany and at 1265 Broadway, New York City, announces under date of February 19th that the charge of bankruptcy filed against the company in October 1933, was tried in the United States District Court, City of New York, before Judge Bryant and a jury, and that the jury returned a verdict on February 15, 1934 in the company's favor, upholding it in all its contentions, finding that it was fully solvent, had never committed an act of bankruptcy and, in effect, that the charge of bankruptcy against it was groundless.

The Westchester Asbestos Company further announces, over signature of its President, W. G. Kuehn, that it is again in full control of its business which will be continued as heretofore, and asks its patrons for their continued favor.

The Montbestos Company, with headquarters at Redick Tower Building, Omaha, Neb., and asbestos property located in Madison County, Mont., about 26 miles from Big Springs, Idaho, is preparing to operate this property, which was formerly known as the United Asbestos Products Corporation.

Officers of the Company are B. P. Wickham, President, Council Bluffs, Iowa; E. R. South, Vice President, Omaha, Nebr.; C. F. Scharman, Vice President, Omaha, Neb.; S. O. Briggs, Treasurer, Omaha, Nebr.; C. E. Goddard, Secretary, Omaha, Nebr.

According to information received from Mr. Scharman, R. J. Sharpe, graduate of McGill University, Montreal, Canada, is filling the post of Engineer, and gives good reports of the property. Samples of the material have not yet been received but can no doubt be obtained by any interested reader, by addressing any one of the officers, as can further information.

Allbestos Corporation. C. A. Grainger, General Sales Manager of the Allbestos Corporation, Philadelphia, has announced the appointment of two new representatives. C. K. Gordon will work for the Allbestos Corporation in the South Western territory; and C. W. Wilson in the states of Iowa and Nebraska.

The Russell Manufacturing Company of Middletown, Conn., has adopted an entirely new system of merchandising its line of engineered brake linings thru its 40,000 replacement outlets in the United States and Canada. The Rusco plan has as its backbone the new Rusco slogan "Triple Protection." The entire campaign calls for an intensive course of education among jobber and service station organizations, at the end of which, if the applicant qualifies, a certificate is granted which authorizes the station to conduct its brake lining work in accordance with the new Rusco system. Further information will be supplied by the company or any branch thereof.

The India Rubber Journal has recently published the following articles on asbestos materials: Asbestos Fittings for

Gutters in the February 3rd issue; The Specific Gravity of Asbestos in the February 17th issue; Asbestos in Modern Boiler Shell Welding in the February 24th issue.

ASBESTOS STOCK QUOTATIONS

			February 1934		
	Par.	Div.	Low	High	Last[1]
Asbestos Corpn. (Com.) New	np	–	7	10	10
Carey (Com.)	100	–	49	49	49
Carey (Pfd.)	100	6	No Sales		
Certainteed (Com.)	np	–	5	7¼	5⅞
Certainteed (Pfd.)	100	7	26	31	29¾
Garlock Packing (Com.)	np	–	16	17⅞	16
Johns-Manville (Com.)	np	–	55¾	65½	57⅜
Johns-Manville (Pfd.)	100	7	106	110	109
Raybestos-Manhattan (Com.)	np	60c	19⅛	22⅜	20½
Ruberoid (Com.)	np	1	29¾	33	33
Thermoid (Com.)	np	–	7½	9⅛	7¾
Thermoid (Pfd.)	100	7	35⅝	40	40

[1]Due to illness on the part of the clerk who generally tabulates these quotations, the "last" figures may not be entirely accurate.

PATENTS

Insulating Material. No. 1,942,546. Granted on January 9th to William R. Gillies, Chicago, Ill., assignor to Union Asbestos & Rubber Company, Chicago. Application January 7, 1931. Serial No. 507,097.

Described as a unit for construction of heat insulating material, comprising an elongated case member constructed of dry asbestos fibres in the form of sliver as it comes from the card, said sliver fibres being arranged side by side and having the outermost fibres of said elongated member matted together with and encased with a layer of gum arabic cement, giving said unit a pre-determined shape and sufficient tensile strength to maintain its form, and a plurality of cords spirally wound about said unit and embedded in said gum arabic cement to give said unit sufficient tensile strength to be handled upon a reel.

Construction of Insulated Walls: No. 1,944,079. Granted on January 16th to Roy A. Graves, Kensington, Maryland. Application, February 24, 1932. Serial No. 594,912.

In the construction of heat insulated walls the process which comprises erecting a wall framework on at least two sides with sheets of reenforcing mesh, filling the space between said sheets of reenforcing mesh with heat insulating material in loose form and subject to packing, and applying a layer of cement over said reeenforcing mesh in such a manner that a substantial portion penetrates into said insulating material thereby forming an in-

terlocking engagement between said material and said cement whereby packing of said insulating material is prevented.

Corrugated Sheathing and Process of Forming Same: No. 1,944,895. Granted on January 30th to John W. Ledeboer, Ambler, assignor to Ambler Asbestos Shingle and Sheathing Co. Application March 11, 1931. Serial No. 521,773.

The method of forming asbestos cement sheathing comprising mixing asbestos fibres and cement with water and working the mixture into substantially flat sheet form with the fibres extending parallel to the plane of the sheet immediately preforming said sheet white plastic over a corrugated filter screen and with fibres extending parallel to the surface of the screen at each point thereof, pressing said sheet between dies permitting the excess liquid to drain away and acting to compact the material to greater density between the bends of the corrugations and then allowing said pressed sheets to set permanently in corrugated form and with the opposite faces substantially identical in contour.

Construction Material: No. 1,945,308. Granted on January 30th to Albert C. Fisher, Chicago, assignor to the Philip Carey Mfg. Co., a corporation of Ohio. Application Aug. 21, 1926. Serial No. 130,682.

A multiply layer resilient boardlike strip of constructional material comprising a core of superimposed bituminized sheets, some of which are imperforated and some of which are formed with a series of recesses and surface layers for covering and reenforcing to provide a cellular structure.

TRADE MARKS

This information is supplied by the National Trade Mark Co., Munsey Bldg., Washington, D. C., who will conduct free of charge an advance search on any trade mark our readers may contemplate adopting.

Grizzly. Serial No. 341,433. E. M. Smith Co., Los Angeles, Calif. For Brake Lining. Passed on February 6.

General. Serial No. 345,073. Raybestos Manhattan, Inc. Passaic, N. J., and Bridgeport, Conn. For Brake Lining. Passed on Feb. 6th.

AUTOMOBILE PRODUCTION

The final figures for factory sales of automobiles for the year 1933 are most encouraging, especially when compared with 1932. These sales for 1933, in the United States and Canada totalled 2,025,869, while the 1932 figure was 1,431,494.

January 1934 sales are given as 167,910, a substantial increase over January 1933, which was 133,445; while the December 1933 figure was 87,414. These figures include Canada as well as the United States.

The Canadian figure for January 1934 was 6,904, more than double their sales for either January 1933 or December 1933.

THIS AND THAT

A correspondent, in considering the use of asbestos as a preventative measure for fire, suggests that house furnace brooms and cheap gloves be made of some sort of asbestos material. Also a match receptacle. The suggestions are passed along for what they are worth.

The current (March 1934) issue of the magazine FORTUNE carries an article of more than passing interest to Asbestos men.

It is a beautifully illustrated story of the history of Johns-Manville from its early beginnings down to date.

Men, machinery, products, uses, ownership—all are well described altho one or two of the photographs by no means do justice to the real men.

FORTUNE sells for one dollar the copy, but, if you don't find one easily, drop in our office and consult ours.

Maurice Salle of the Societe Francaise de L'Amiante, at Flers de l'Orne, France, and also owner of the Flertex Company, France, manufacturers of brake linings and clutch facings, will be in New York some time in March. He will be accompanied by Charles A. Viriot, General Manager of the Flertex Company.

M. Salle is interested in all asbestos products, insulating materials, sound-proofing materials, etc., etc. He will be residing in New York at the San Regis, where correspondence to him should be addressed with copy sent in care of his shippers: J. E. Bernard & Co., 27 Pearl Street, New York.

The January 1934 Bulletin of the American Society for Testing Materials states that "New specifications were prepared (during the previous year) by Committee D-13 on Textile Materials for Holland cloth and asbestos roving and test methods for the determination of copper and manganese in textiles."

Also that "A revision of the asbestos tape specifications is in preparation and work on dielectric resistance of tape is under consideration."

CONSIDER THE HAMMER

It keeps its head

It doesn't fly off the handle

It keeps pounding away

It finds the point, then drives it home

It looks at the other side too, and then clinches the matter

It makes mistakes but when it does it starts all over

It is the only knocker in the world that does any good

If you are inclined to lose your head and fly off the handle: Consider the Hammer